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NOTES ON DUBRONY'S (= BORMANS) SOME MATERIAL OF DERMAPTERA

(INSECTA)

INTRODUCTION

The present paper is based on 19 examples of Dermaptera previously determined by Dubrony which now comprise eight species including one identified up to generic level only which is represented by a ♀. In addition one example of undetermined Dermaptera is also dealth with which represents *Timomenus bicostatus* Borelli.

The above material contains Type ♂ of *Labidurodes robustus* Dubrony and Type ♀ of *Leptisolabis punctata* Dubrony. As a result of reexamination of types of *Labidurodes robustus* Dubrony and *L. egregius* Günther, it is found that latter is synonym of former. Lectotype and paralectotypes are selected for *Apachyus beccarii* Dubrony which is represented by 2 ♂♂, 2 ♀♀ Syntypes.

Out of 2 exs. previously determined as *Echinosoma westermanni* Dohrn, 1 ♂ belongs to an undescribed species and the other, 1 ♀ to *Echinosoma* sp., which could not be determined up to specific level in the absence of a ♂. Six examples referred to *Echinosoma sumatranum* (Haan) belong to *E. forbesi* Kirby, which has been resurrected. Besides, 2 ♂♂ referred to as *Forcinella colossea* Dohrn, represent a new species under the genus *Titanolabis* Burr and 2 ♂♂ labelled as *Hamaxas feae* belong to *H. nigrorufus* Burr.

Additional information providing illustrations is given for most of the species.

I am thankful to the Director, Zoological Survey of India, Calcutta for providing necessary facilities during the course of present work and to Dr. R. Poggi, Curator, Museo Civico di Storia Naturale « Giacomo Doria », Genova, Italy for placing this interesting collection at my disposal and for very kindly arranging for editing and publication of the present paper. I am also indebted to Dr. Kurt K. Günther, Museum für Naturkunde der Humboldt - Unversität, DDR, Berlin for the loan of Holotype ♂ of *Labidurodes egregius* Günther.

PYGIDICRANIDAE

ECHINOSOMATINAE

Echinosoma forbesi Kirby stat. nov. Fig. 1

Echinosoma sumatranum (nec Dohrn); Dubrony, 1879, *Ann. Mus. civ. St. nat. Genova*, XIV: 352 (partim).
Echinosoma forbesi Kirby, 1891, *J. Linn. Soc. Zool.*, 23, 509, pl. 12, fig. 9 (♀) (♂, ♀; Dinner Is.); Kirby, 1904, *Syn. Cat. Orth.*, 1: 8; Bormans, 1900, *Das Tierreich*, 11: 26, 28; Burr, 1902, *Termèszetr Füz.*, 25: 478 (New Guinea); Burr, 1906, *Nova Guinea*, 5: 9 (New Guinea); Burr, 1910, *Trans. R. ent. Soc. London*: 164; Burr, 1911, *Genera Insect.*, 122: 23; Burr, 1915, *J.R. micr. Soc.*: 437; Günther, 1929, *Mitt. Zool. Mus. Berlin*, 15: 60, 68 (New Guinea); Hincks, 1959, *Syst. mono. Dermaptera*, 2: 136, fig. 125 (as synonym of *Echinosoma yorkense* Dohrn).

Material examined. 2 ♀♀, Nuova Guinea, Andai, VIII.72; 2 ♂♂ Australia, Somerset, I.75, L.M. D'Albertis; genitalia mounted between two celluloid slips and attached with the specimen; 1 ♀, N. Guinea, Salvatti, XI.1875, O. Beccari; 1 ♀, Isole Aru, Wokan, 1873, O. Beccari; all det. and referred by Dubrony (= Bormans), 1879 as *Echinosoma sumatranum* (Haan).

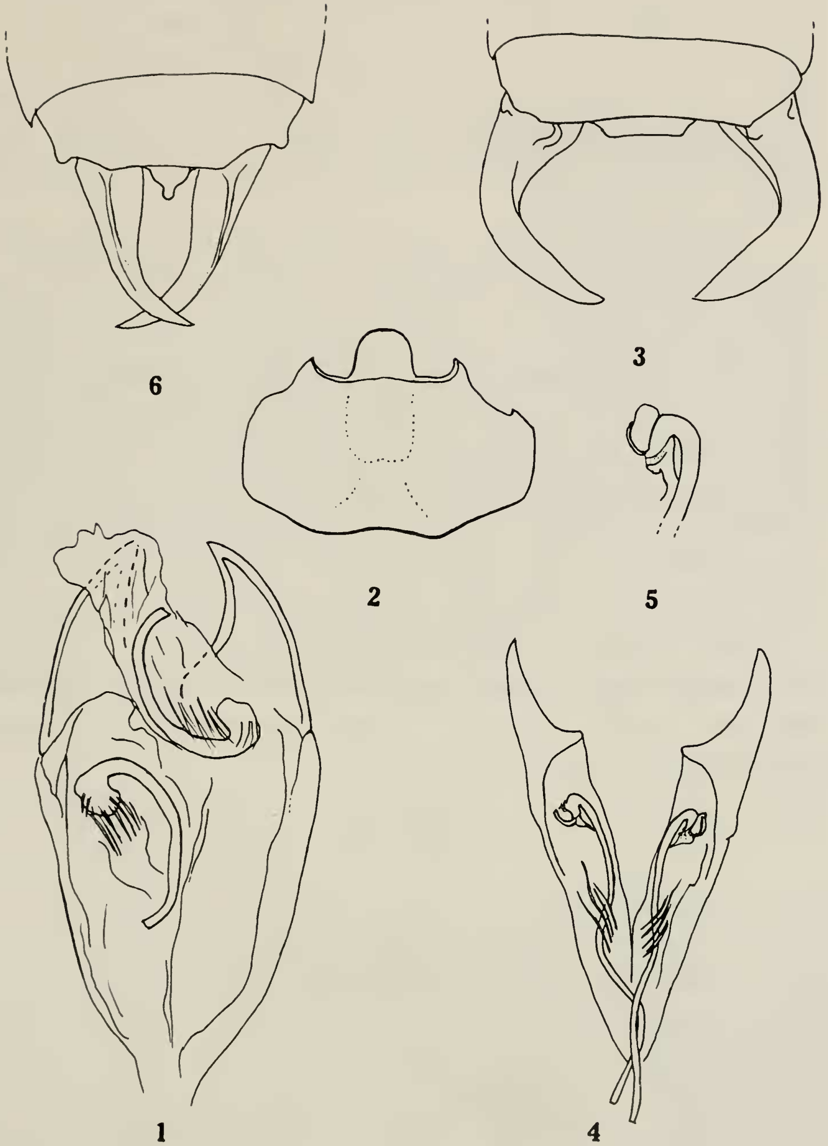
Remarks. HINCKS (1959, fig. 125) figured a portion of male genitalia showing distal lobe with virga from one of the male cotypes of *Echinosoma forbesi* Kirby and considered this species as synonym of *E. yorkense* Dohrn, on the presumtion that apical portion of virga in the former are broken off. In the present material there are two males and their genitalia agree with that of *E. forbesi* Kirby. Therefore, it becomes certain that in this species virga are short and quite distinct from that of *E. yorkense* figured by HINCKS (l.c.). For this reason *E. forbesi* Kirby is treated here as a valid species.

The ♀ from Aru Is. is so similar to the females of this species, it is referred here. It can be very well referred to *E. siebersi* Borelli on the basis of description alone. Since the discovery of male alone can solve the status of this species it will be better for the present to treat *E. siebersi* Borelli as synonym of *E. yorkense* Dohrn as proposed by HINCKS (l.c.).

Echinosoma beccarii sp. nov. Figs. 2-5

Echinosoma westermanni (nec Dohrn); Bormans (pars), 1879, *Ann. Mus. civ. St. nat. Genova*, 14: 352.

♂: General colour blackish brown. Mouth parts, basal two antennal segments, frons with a small spot near the meeting point of trans-



Figs. 1-6 - *Echinosoma forbesi* Kirby, ♂; 1. Genitalia. *Echinosoma beccarii* sp. nov., Holotype ♂; 2. Penultimate sternite; 3. Ultimate tergite and forceps; 4. Genitalia; 5. Basal portion of virga enlarged. *Echinosoma* sp., ♀; 6. Ultimate tergite and forceps.

verse suture and inner margin of eyes and pronotum along the median line, laterally with a triangular and smaller patch on either side of middle line a little before middle yellowish brown. Legs yellow, fore femora with one or two patches, middle and hind ones in a little less than basal half and tarsi in basal half brownish black. Abdomen with faint reddish brown patches, not arranged in any fashion, rather scattered. Body covered with thick setae and abdomen with fine recumbent setae, each arising from punctation.

Head weakly transverse, sutures faint, hind margin faintly emarginate in middle, frons weakly convex. Eyes shorter than the postocular length. Antennae (27 segments on the right and 26 on the left remaining in Holotype ♂), normal, middle segments not subpyriform. Pronotum transverse, sides straight, gently reflexed, hind margin straight, scarcely emarginate in middle. Legs normal. Elytra rugose, abbreviated, slightly longer than pronotum, truncate posteriorly. Wings slightly projecting beyond elytra laterally as a narrow lobe. Abdomen punctate, enlarging posteriorly, moderately convex, sides of segments 5th to 9th obtuse angled posteriorly, rugosely punctate, segments 7th to 9th with an obscure median raised fold, on segments 5th and 6th extreme posterior tip thickened. Penultimate sternite finely punctulate, emarginate in middle posteriorly. Ultimate tergite transverse, sparsely punctate, median sulcus faint, in middle posteriorly a small, slightly raised triangular area. Pygidium transverse. Forceps remote, cylindrical, strongly incurved, Genitalia as in fig. 5.

♀: Unknown.

Measurements (in mm)	Holotype ♂
Length of head	2.1
Width of head	2.4
Length of 1st antennal segment	0.6
Distance between antennal bases	0.9
Length of eye	0.5
Length of area behind eye	0.7
Length of pronotum	1.9
Width of pronotum	2.4
Length of elytra	2.4
Length of wings	0.4
Length of ultimate tergite	0.9
Width of ultimate tergite	3.2

Length of pygidium	0.6
Width of pygidium (at base)	1.0
Length of body	12.3
Length of forceps	2.5

Material examined. Holotype ♂ labelled as: i) N. Guinea, Hatam, VI.1875, Beccari; ii) *E. westermanni* Dohrn (handwritten, not by Bormans) and iii) Museo Civico di Genova — genitalia mounted on two celluloid slips and pinned with the specimen.

Remarks. This species comes close to *Echinosoma yorkense* Dohrn, from New Guinea but differs in having faint and scattered abdominal spots (vs arranged in three distinct rows in *E. yorkense*); sides of abdominal segments 5th to 9th posteriorly obtuse with weak median fold on 7th to 9th only (vs sides of 6th to 9th segments posteriorly acute, with a median carina fine but distinct on 7th to 9th only); male genitalia with virga slender and distal lobes with chitinous teeth less (vs virga stouter especially very much enlarged at base and inner armature of distal lobes much heavier).

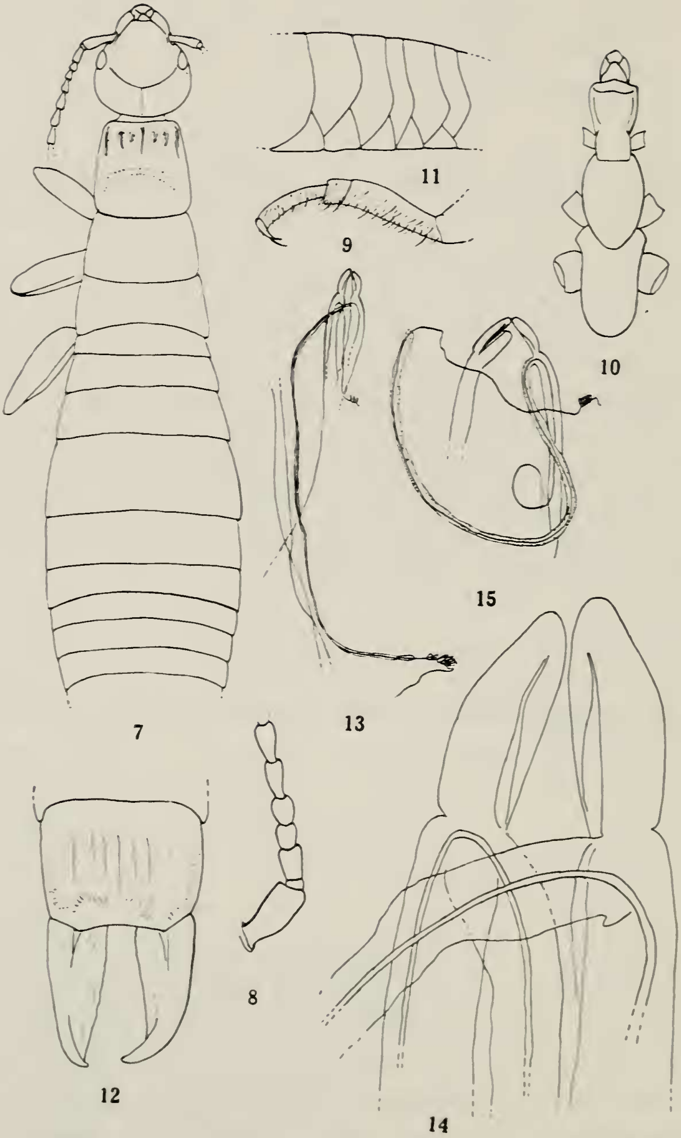
Echinosoma sp. Fig. 6

Echinosoma westermanni (nec Dohrn); Bormans (pars), 1879, *Ann. Mus. civ. St. nat. Genova*, 14: 352.

Material examined. 1 ♀, labelled as Nuova Guinea, Fly River, 1876-77, L.M. D'Albertis; *Echinosoma westermanni* (Dohrn) ♀ — handwritten by Bormans; *Echinosoma* sp. n. — another handwritten label, not by Bormans.

Remarks. On account basal two antennal segments being yellow and abdomen uniformly coloured (lacking any pattern) the above ♀ belongs to *sumatranum* group (HINCKS, 1959). General colour is dark brownish black except sides of pronotum and femora apically and whole of tibiae and tarsi yellow. Elytra above are with a rhomboidal yellow spot and on margin brownish black. Setae on abdomen are very few and punctation is dense and deep. Besides, there is a smooth rounded patch on each tergite sub-laterally near base. Length: body 15.2 mm; forceps, 1.9 mm.

Perhaps a new species is represented but in the absence of a ♂ it is not possible to ascertain its specific position.



Figs. 7-15 - *Titanolabis bormansi* sp. nov., Holotype ♂; 7. Dorsal view except ultimate tergite, forceps and legs of right side; 8. A few basal antennal segments; 9. Hind tarsi; 10. Sternal plates; 11. Sides of a few posterior abdominal tergites; 12. Ultimate tergite and forceps; 13. Genitalia; 14. Anterior portion of genitalia enlarged; Paratype ♂; 5. Anterior portion of genitalia.

CARCINOPHORIDAE

TITANOLABINAE

Titanolabis bormansi sp. nov. Figs. 7-15

Forcinella colossea; (nec Dohrn) Dubrony, 1879, *Ann. Mus. civ. St. nat. Genova*, 14: 357.

♂: General colour dark blackish brown; antennae, legs and certain abdominal tergites in middle somewhat lighter in colour. Glabrous and smooth.

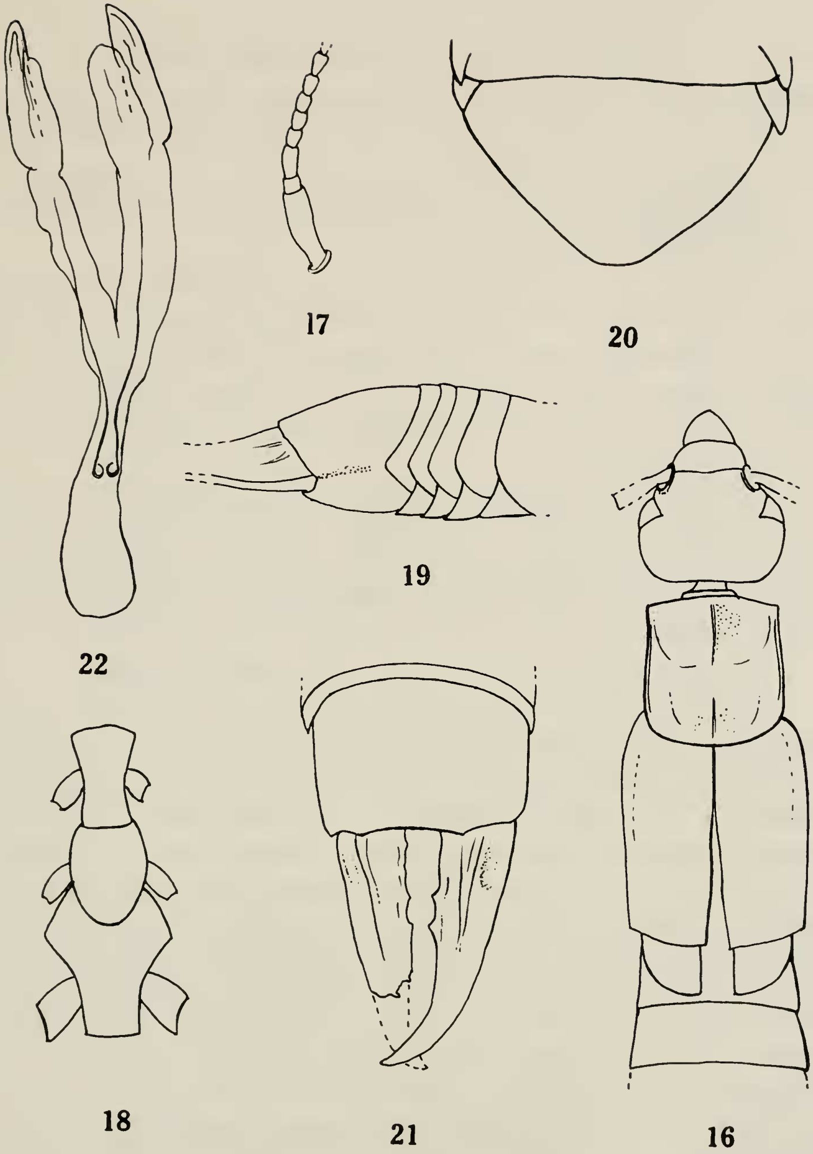
Head globose, a trifle longer than broad, hind margin subrotundate, frons and occiput moderately raised, sutures fine but distinct, at the junction of transverse and median sutures faintly depressed. Eyes not prominent, slightly less than half the post-ocular length. Antennae (partly broken; holotype with 11 segments on the right and 12 on the left) 12-segmented or more, finely pubescent; 1st, stout, strongly narrowed near base, expanded apically, slightly shorter than the distance between antennal bases; 2nd short, transverse; 3rd long, slender, only slightly shorter than the combined length of 4th and 5th; 4th clavate; 5th sub-clavate, slightly longer than preceding, remaining gradually increasing in length successively and each narrowed at base and expanded apically. Pronotum with all margins straight, sides feebly reflexed, postero-lateral angles rounded, widened posteriorly, prozona strongly raised, in each half with a row of finely tuberculated and smooth stripes clost to anterior margin; metazona flat and well demarkated from prozona by a transverse depression. Mesonotum and metanotum transverse, former feebly convex and latter broadly emarginate posteriorly. Apterous. Thoracic sternite typical. Legs short stout, femora with a few long hairs, apex of tarsi and underside of tibiae clad with golden yellow hairs; hind tarsi with 1st segment slightly longer than 3rd; 2nd small. Abdomen spindle shaped, tergites smooth, sides of segments faintly striate and with obscure punctation, broadly convex posteriorly. Penultimate sternite smooth, triangular with hind margin rounded in middle. Ultimate tergite weakly transverse, moderately convex above, laterally feebly depressed, depression more pronounced posteriorly, feebly depressed and sloping in middle posteriorly, disc above with a median coarse stripe and two similar stripes on either side of it and area beyond it obscurely micro-reticulate, hind margin trisinuate, laterally oblique, postero-lateral angles rounded. Pygidium scarcely visible from above, vertical, triangular, narrowed apically. Forceps subcontiguous, broader at base, gradually tapering apically, almost straight in basal half, gently incurved in apical half with tip pointed and gently hooked, trigonal, inner ventral margin faintly serrulate and thickened. Genitalia with paramere almost parallel sided in basal two thirds, afterwards narrowed with tip rounded; median incision of proparameres extending up to base, both distal lobes directed backwards, right one 3½ times and left one almost as long as the genitalia, virga long, tubular, extending beyond distal lobes and spirally coiled in normal condition (coils of virga tend to uncoil during mounting, often break off also).

♀: Unknown.

Measurements (in mm)	Holotype ♂	Paratype ♂
Length of head	4.0	3.3
Width of head	3.7	3.1
Length of pronotum	3.3	2.5
Width of pronotum	3.3	2.5
Length of ultimate tergite	4.2	2.5
Width of ultimate tergite	5.8	3.7
Length of body	27.8	19.2
Length of forceps	5.0	3.2

Material examined: Holotype ♂ labelled as: (i) Blue Mountains, N.S. Wales, Australia, III.78; L.M. D'Albertis; (ii) *A. colossea* Dohrn (det. by Bormans, label handwritten but not by Bormans); (iii) ♂ and (iv) Museo Civico di Genova, genitalia mounted between two coverslips and pinned with the specimen. Paratype ♂ with same data as above, genitalia mounted between two celluloid slips and pinned with the specimen.

Remarks. Steinmann (1979) has designated the Lectotype ♂ of *Titanolabis colossea* (Dohrn, 1864) from New Caledonia with which the here described species comes very close. It can be separated from *T. colossea* by the shape of ultimate tergite in having the posterior margin trisinuate and oblique laterally; parameres almost of uniform width up to middle, thence narrowed with external margin oblique in apical half and tip rounded, distal lobes three and half times longer than the whole of genital armature. Further comparisions between the two species are not possible owing to the brief description of the lectotype ♂ of *T. colossea*.



Figs. 16-22 - *Anisolabis robusta* (Dubrony). Holotype ♂; 16. Anterior portion of body; 17. A few basal antennal segments; 18. Sternal plates; 19. Sides of a few posterior abdominal segments; 20. Penultimate sternite; 21. Ultimate tergite and forceps; 22. Genitalia.

CARCINOPHORINAE

Anisolabis robusta (Dubrony) Figs. 16-22

Labidurodes robustus Dubrony, 1879, *Ann. Mus. civ. St. nat. Genova,* 14: 356, fig. (♂; Fly River, Nouvelle Guinée - Museo Civico di Storia Naturale Genova); Bormans, 1900, *Das Tierreich,* 11: 39.

Labidurodes egregius Günther, 1929, *Mitt. Zool. Mus. Berlin,* 15 (1): 71 (Holotype ♂, Lager am Lehmflufs, Nordost - Neu-Guinea; Paratype 1 ♂, Jamur, Holl. Neu-Guinea - Zoologisches Museum, Museum für Naturkunde der Humboldt Univ., DDR - Berlin) - syn. nov.

Material examined. Holotype ♂, labelled as (i) Nuova Guinea, Fly River, L.M. D'Albertis, 1876-77; (ii) Typus - printed in red; (iii) *Labidurodes robustus* ♂ (Dubrony) - in Bormans hand; (iv) *Labidurodes robustus* Dub. - handwritten, not by Bormans and (v) Museo Civico di Genova. Genitalia mounted between two coverslips and pinned with the specimen.

Holotype ♂ of *Labidurodes egregius* Günther labelled as: (i) Lager am Lehmflufs, 323; 30.IV.'13; (ii) D.N. Guinea, Dr. Bürgers K. Agusta Exp. flf.; (iii) Typus; (iv) Zool. Mus. Berlin - and (v) *Labidurodes egregius* Günther. Genitalia mounted between two coverslips and pinned with the specimen.

Following is the additional information on the Holotype ♂.

Head longer than broad, sutures obscurely marked, hind margin feebly emarginate in middle. Eyes not prominent, shorter than postocular length. Antennae (partly broken, on the right side 22 segments and on the left side 25, remaining) with basal segment cylindrico-conical, longer than the distance between antennal bases; 2nd about as long as broad; 3rd long and slender, almost equal to the combined length of 4th and 5th; segments 4th to 7th gradually increasing in length but all shorter than 3rd; 8th onwards segments longer than 3rd, a few preapical ones thin and rod shaped. Prosternum longer than broad, constricted laterally between fore-coxae; mesosternum oblong; metasternum broader at base, apically narrowed between hind-coxae and projecting beyond it with hind margin truncate. Abdomen gently dilated in middle, weakly convex, surface above obscurely punctulate, sides of segments 6th to 9th convex, smooth, hind margin of tergites with a row of minute tubercles. Penultimate sternite triangular, obtusely rounded in middle posteriorly. Ultimate tergite transverse, convex above with a few longitudinal striations, posteriorly sloping, laterally rugose with two stripes provided with minute tubercles. Forceps internally with two small teeth, otherwise unarmed. Genitalia with parameres four and half times longer than broad, tip internally pointed, distal lobes directed forward, median incision of proparameres extending almost the entire length, virga thin and tubular provided at base with a small rounded lobe.

♀: Unknown.

Measurements (in mm)	Holotype ♂
Length of head	3.8
Width of head	3.5
Length of 1st antennal segment	1.6
Distance between antennal bases	1.5
Length of eye	0.7
Length of area behind eye	1.2
Length of pronotum	4.0
Width of pronotum	3.6
Length of elytra	5.7
Length of wing	1.1
Length of ultimate tergite	3.5
Width of ultimate tergite	5.5
Length of body	23.5
Length of forceps	6.1

Remarks. Although Popham and Brindle (1966) transferred this species under *Anisolabis*, its generic position remained uncertain in the absence of ♂ genitalia. It is described here for the first time which confirms that it is a member of *Anisolabis*. Besides, the shape of sternal plates also justify its inclusion under this genus.

As a result of reexamination of Holotype ♂ of *Labidurodes egregius* Günther it becomes clear that this species is a synonym of *Anisolabis robusta* (Dubrony).

ISOLABIINAE

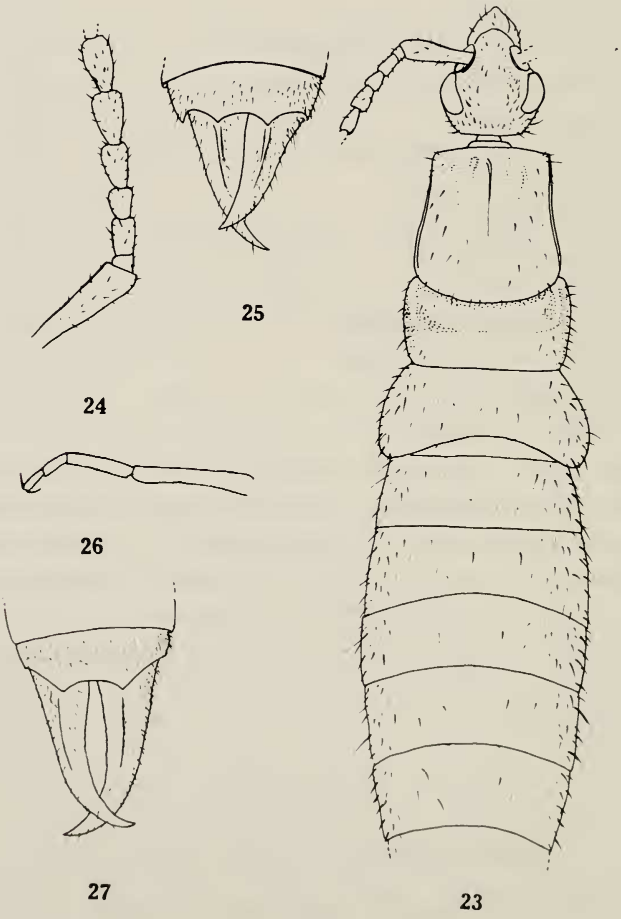
Isolabis punctata (Dubrony) Figs. 23-27

Brachylabis punctata Dubrony, 1879, *Ann. Mus. civ. St. nat. Genova*, 14: 357, fig. ♀ (♀, Java, Buitenzorg); Bormans, 1900, *Das Tierreich*, 11: 35 (♂, ♀; excluding material from Burma).

Leptisolabis punctata: Burr, 1910, *Trans. R. ent. Soc. London*, 1910: 198; Burr, 1913, *Tijdscher Ent.*, 56: 313; Borelli, 1926, *Treubia*, 8: 260 (♂, ♀, Java); Hebard, 1927, *Proc. Acad. nat. Sci. Philad.*, 79: 28; Boeseman, 1954, *Zool. Meded.*, 31: 56.

Isolabis punctata: Popham and Brindle, 1966, *Entomologist*, 99 (1241): 245; Steinmann, 1977, *Ann. Hist. nat. Mus. Nat. Hung.* 69: 97; Srivastava, 1979, *Ann. Mus. civ. St. nat. Genova*, 82: 325.

Material examined. (1) Holotype ♂, labelled as: (i) Buitenzorg, 1877, G.B. Ferrari; (ii) Typus - printed in red; (iii) *Brachylabis punctata* ♀ Dubrony - handwritten by Bormans; (iv) *Leptiso-*



Figs. 23-27 - *Isolabis punctata* (Dubrony), Holotype ♀; 23. Dorsal view without legs, ultimate tergite and forceps; 24. A few basal antennal segments; 25. Ultimate tergite and forceps; ♂; 26. Hind tarsi; 27. Ultimate tergite and forceps.

labis punctata ♀ - handwritten by Borelli; (v) *punctata* Dubr. - handwritten but not by Bormans or Borelli and (vi) Museo Civico di Genova.

(2) ♂, labelled as: (1) Sumatra, Ajer. Mantcior, Agosto. 1878, O. Beccari; (ii) *Brachylabis punctata* (Dubr.) ♂ - handwritten by Bormans; (iii) *Leptisolabis punctata* ♂ - handwritten by Borelli and (iv) Museo Civico di Genova. Genitalia appears to have been taken out earlier since it is not traceable in the specimen.

The original description of DUBRONY (1879) is not quite in detail. Therefore following additional information from Holotype ♀ and the other ♂ is furnished:

Head with frons raised, sutures obsolete, hind margin almost straight. Eyes prominent, about twice as long as the post-ocular length. Antennae 12-segmented or more (in Holotype ♀ 10 segments on the right and 12 on the left side remaining), basal segment expanded apically, about twice as long as the distance between antennal bases; 2nd about as long as broad; 3rd long and slender; 4th subclavate, shorter than 3rd; 5th about as long as 3rd but cylindrico-conical, remaining gradually increasing in length and each one gently expanded apically. Pronotum longer than broad, anteriorly convex, sides straight, diverging posteriorly, postero-lateral angles well rounded and hind margin briefly rounded. Mesonotum transverse, in middle with a faint transverse depression, hind margin subtruncate, in the anterior half with a incurved weak fold laterally. Metanotum transverse, expanded posteriorly with hind margin broadly concave and angles rounded. Abdominal tergites punctate, punctation separated from each other by the space almost equal to their size.

Remarks. The other ♂ associated with this species by Dubrony agrees with Holotype ♀ in most characters except that the forceps are subcontiguous and gradually curved in apical one thirds. Besides, lateral fold in the apical half of mesonotum is more prominent.

With STEINMANN'S (1977) key to the genera and subfamilies this species runs down to the genus *Isolabis* Verhoeff. Among the species included under this genus it comes very close to *I. ocellata* Srivastava (1979) from Burma but differs by the absence of sutures on head; pronotum distinctly widened posteriorly with postero-lateral angles and hind margin well rounded and mesonotum with weak lateral folds in apical half.

APACHYIDAE

APACHYINAE

Apachyus beccarii Dubrony Figs. 28-34

Apachys beccarii Dubrony, 1879, *Ann. Mus. civ. St. nat. Genova*, 14: 349 (♂, ♀; Nouvelle Guinée) (« *Apachyus* »).

Material examined. (1) Lectotype ♂, labelled as (i) N. Guinea, Hatam, VII.1875, Beccari; *Apachys beccarii* sp. n. ♂ (Dubrony) - handwritten by Dubrony (= Bormans); (ii) Type - in red; (iii) *beccarii* Dubr. - handwritten label but not by Bormans and (iv) Museo Civico di Genova; genitalia mounted between two celluloid slips and pinned with the specimen.

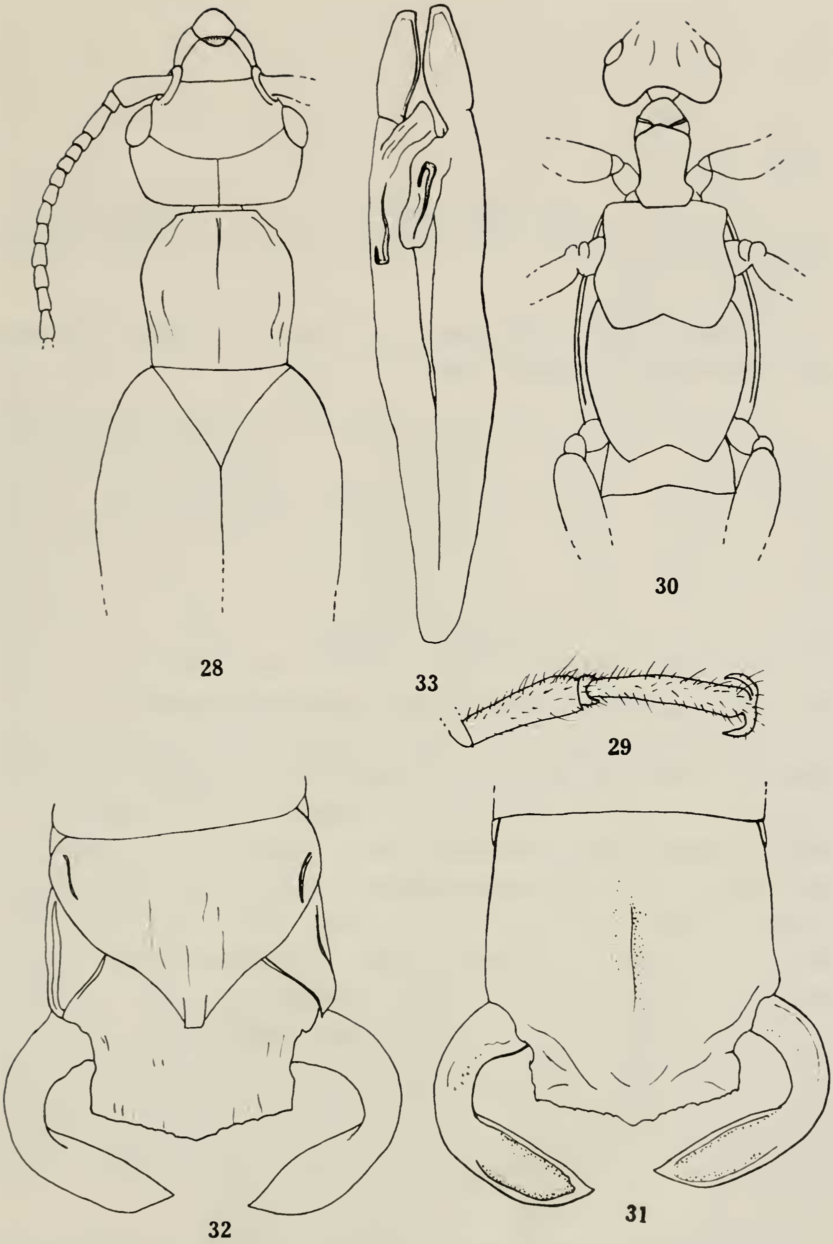
(2) Paralectotype ♂, labelled as (i) N. Guinea, Hatam, VII.1875, Beccari; (ii) *Apachys beccarii* sp. n. ♂ (Dubrony) - handwritten by Dubrony (= Bormans) and (iii) Museo Civico di Genova.

(3) Paralectotype ♀, labelled as (i) Nuova Guinea, Fly River, 1876-77, L.M. D'Albertis; (ii) *Apachys beccarii* (Dubr.) - handwritten by Dubrony (= Bormans) and (iii) Museo Civico di Genova.

(4) Paralectotype ♀, labelled as (i) Nuova Guinea, Fly River, 1876-77, L.M. D'Albertis; (ii) *Apachys beccarii* (Dubr.) - handwritten by Dubrony (= Bormans) and (iii) Museo Civico di Genova.

Measurements (in mm). Number besides each specimen within brackets refers to Sl. No. on which these are listed under the material examined.

	Lectotype	Paralectotypes		
	♂	♂ (2)	♀ (3)	♀ (4)
Length of head	2.2	2.25	2.0	2.0
Width of head	2.4	2.3	2.1	2.1
Length of pronotum	2.0	2.2	1.7	1.8
Width of pronotum	2.0	2.2	1.7	1.8
Length of elytra	4.2	4.2	3.0	4.2
Length of wing	3.2	3.7	2.7	2.5
Length of ultimate tergite (including anal process)	4.0	4.0	3.2	3.4



Figs. 28-33 - *Apachyus beccarii* Dubrony, Lectotype ♂; 28. Anterior portion of body; 29. Hind tarsi; 30. Sternal plates; 31. Ultimate tergite and forceps; 32. Penultimate sternite and forceps; 33. Genitalia.

Width of ultimate tergite	3.8	3.6	3.0	3.3
Length of body	19.3	17.45	16.0	18.2
Length of forceps	2.7	2.7	2.8	2.9

Remarks. The above material represents syntypes and the specimen designated here as Lectotype ♂, appears to have been figured by DUBRONY (1879).

Though original description is adequate, following additional information will be of much use.

♂: Head smooth, depressed, sutures distinct, hind margin almost straight. Eyes moderately prominent but shorter than post-ocular length. Antennae with basal segment stout, expanded apically, shorter than the distance between antennal bases; 2nd broader than long; 3rd long and slender, slightly longer than the combined length of 4th and 5th; 4th about as long as broad, gently narrowed at base; 5th onwards segments gradually lengthing and thinning, a few apical segments thin and rod shaped. Elytra and wings well developed. Prosternum longer than broad, anteriorly convex, laterally constricted between fore-coxae, afterwards gently expanded with hind margin truncate. Mesosternum transverse, anteriorly truncate and posteriorly emarginate in middle. Metasternum oval with hind margin emarginate. Legs typical for the genus, hind tarsi with 1st segment slightly shorter than 3rd; 2nd short; claw without arolium. Abdomen shallowly punctate. Penultimate sternite triangular, laterally at base with a short ridge and apically with a broad raised area in middle. Ultimate tergite transverse, obscurely striate especially in middle, median sulcus represented by a short depression in middle, laterally compressed with upper border sharp and lower border with a ridge. Anal process transverse, posterior margin dentate. Forceps short, stout, incurved, in apical half depressed with inner border sharp. Genitalia with parameres a little over twice as long as broad, broadened in middle, anteriorly feebly convex, virga tubular, at base curved.

♀: Ultimate tergite weakly transverse, median sulcus distinct, surface above with rounded tubercles. Anal process semicircular with free margin finely serrated.

CHELISOCHIDAE

CHELISOCHINAE

Hamaxas nigrorufus (Burr)

Spongiphora nigrorufa Burr, 1902, *Term. Füz.*, 25: 480 (1 ♂, 2 ♀, New Guinea: Stephensort (Astrolabe Bay) and Simbang (Huon Golf)).
Lobophora fuscipennis (nec de Haan): Dubrony, 1879, *Ann. Mus. civ. St. nat. Genova*, 14: 376.

Material examined. 1 ♂, labelled as Isole Aru, Wokan, 1873, O. Beccari; *Chelisoches fuscipennis* Haan; 1 ♂; Nuova Guinea, Fly River, 1876-77, L.M. D'Albertis; *Chelisoches fuscipennis* Haan. The above material was referred to by Dubrony (1879) as *Lobophora fuscipennis* (de Haan).

Distribution. Oriental Region (Celebes and Philippine Isls.), New Guinea and Pacific Islands.

FORFICULIDAE

OPISTHOCOSMIINAE

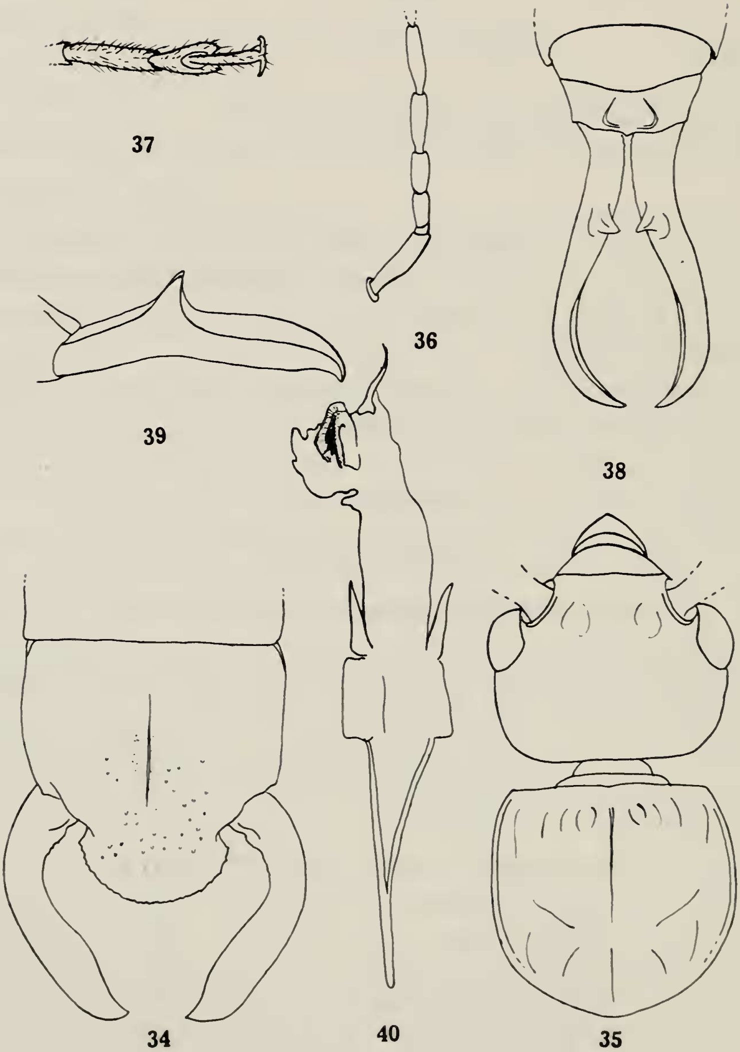
Timomenus bicostatus Borelli Figs. 35-40

Timomenus bicostatus Borelli, 1932, *Bull. Raffles Mus.*, 7: 93, figs. 9, 9a and 10 (♂, ♀; Malaysia: Phang, Cameron Higlands); Brindle, 1969, *Ent. mon. Mag.*, 104: 248; Srivastava, 1976, *Occ. pap.*, *Rec. zool. Surv. India* 2: 70.

Material examined. 1 ♂: Malaysia, nr Singapore, 980 ft., 20.IX.1980, dono S. Riese. Genitalia mounted between two coverslips and pinned with the specimen.

Measurements (in mm)	♂
Length of head	2.0
Width of head	2.0
Length of pronotum	1.9
Width of pronotum	2.0
Length of elytra	3.3
Length of wing	1.4
Length of body	13.9
Length of forceps	5.7

Remarks. Agrees well with the original description of the species. Following are some additional informations:



Figs. 34-40 - *Apachyus beccarii* Dubrony, Paralectotype ♀; 34. Ultimate tergite and forceps. *Timomenus bicostatus* Borelli, ♂; 35. Head and pronotum; 36. A few basal antennal segments; 37. Hind tarsi; 38. Ultimate tergite and forceps; 39. Forceps, in profile; 40. Genitalia.

Head as long as broad, hind margin scarcely emarginate in middle, sutures represented by shallow depressions. Eyes small, not prominent, much shorter than the post-ocular area in length. Antennae with segments long and slender; 1st cylindrico-conical, a trifle longer than the distance between antennal bases; 2nd small, about as long as broad; 3rd long and slender; 4th slender slightly longer than 3rd, remaining gradually increasing in length and thinning. Legs typical, hind tarsi with 1st segment compressed, about as long as 3rd, 2nd lobed with hind margin emarginate in middle.

This species is quite characteristic in having long pubescence on head, pronotum, elytra, wings and legs only. It can be easily differentiated from other members of the genus by the shape of sides of abdominal segments, ultimate tergite and forceps.

Distribution. Malaysia (Sumatra).

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SUMMARY

The present paper deals with 19 examples of Dermaptera previously determined by Dubrony (= Bormans) under seven species which now contain eight species (of these one determined up to generic level), including Type ♂ of *Labidurodes robustus* Dubrony; Type ♀ of *Leptisolabis punctata* Dubrony and syntypes 2 ♂♂, 2 ♀♀ of *Apachyus beccarii* Dubrony. Apart from above one example of undetermined Dermaptera represents

Timomenus bicostatus Borelli. *Echinosoma forbesi* Kirby is resurrected which was hitherto considered as synonym of *E. yorkense* Dohrn. *Echinosoma beccarii* sp. nov. is described on 1 ♂ from New Guinea earlier referred to as *E. westermanni* Dohrn. *Titanolabis bormansi* sp. nov. is described on 2 ♂♂ earlier determined as *Forcinella colossea* Dohrn, from Australia, besides synonymising *Labidurodes egregius* Günther under *L. robustus* Dubrony. Lectotype and paralectotypes are designated for *Apachyus beccarii* Dubrony.

RIASSUNTO

L'A. riesamina 19 esemplari di Dermatteri della Regione Austromalese già determinati da Dubrony nel 1879. Risulta che: *Echinosoma forbesi* Kirby già considerato sinonimo di *E. yorkense* Dohrn è specie valida; un es. già citato come *E. westermanni* Dohrn appartiene invece a *E. beccarii* n. sp. di Nuova Guinea; esemplari già determinati come *Forcinella colossea* Dohrn, appartengono a *Titanolabis bormansi* n. sp. dell'Australia. La specie *Labidurodes robustus* è trasferita nel gen. *Anisolabis* e *Labidurodes egregius* Günther è posta in sinonimia con *Anisolabis robusta*. Esaminato il tipo di *Brachylabis punctata* Dubrony, se ne conferma l'attuale appartenenza al gen. *Isolabis*. Vengono designati lectotipo e paralectotipi di *Apachyus beccarii* Dubr.